

-1- (JAPIO)

ACCESSION NUMBER	86-140067
TITLE	ZINC ALKALI BATTERY
PATENT APPLICANT	(2000582) MATSUSHITA ELECTRIC IND CO LTD; (2000618) MITSUI MINING & SMELTING CO LTD
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SOURCE	86.11.14 SECT. E, SECTION NO. 454; VOL. 10, NO. 337, PG. 25.
INT'L PATENT CLASS	H01M-004/42; C22C-018/00
JAPIO CLASS	42.9 (ELECTRONICS--Other); 12.2 (METALS--Metallurgy Heat Treating); 12.3 (METALS--Alloys)
ABSTRACT	<p>PURPOSE: To obtain a low pollution alkali battery by employing zinc alloy containing Ni and Ag within proper content for the negative pole thereby reducing the hardening rate of negative pole alloy.</p> <p>CONSTITUTION: Zinc alloy containing 0.01-0.5wt% of nickel and 0.01-0.5wt% of silver is employed for the negative pole of zinc alkali battery. When adding Ni and Ag to negative pole zinc, remarkable corrosion-proof effect is achieved when compared with the case where said element is added independently. It is presumed that the affinity with mercury on the surface of zinc alloy is improved through addition of Ag while Ni will contribute to suppress dispersion of mercury into the particle to improve the corrosion resistance considerably through formation of zinc alloy surface having high hydrogen overvoltage. Remarkable complex effect is recognized only when the content of Ni and Ag in zinc alloy composition is within said range. Consequently, a zinc negative pole having low hardening rate while provided with discharge performance and corrosion resistance can be obtained.</p>